



Phenylalanine Assay Kit

Product Information

Cat.No.

Kit-2080

Product Overview

L-Phenylalanine Assay Kit provides a convenient fluorimetric means to measure L-phenylalanine in biological samples. In the assay, L-phenylalanine is oxidized by phenylalanine dehydrogenase, producing NADH, which reduces a fluorescent dye to a highly fluorescent product. The resulting fluorescence intensity ($\lambda_{exc}/\lambda_{em} = 530/585 \text{ nm}$) is linear to the L-phenylalanine concentration in the sample.

Size

100 tests

Description

L-Phenylalanine is one of the twenty common amino acids and an important precursor for several key signal molecules such as dopamine, norepinephrine, epinephrine, and the skin pigment melanin. It is found naturally in the breast milk of mammals, and used as nutritional supplements in food and drink products. The genetic disorder phenylketonuria is the inability to metabolize phenylalanine. Individuals with this disorder are known as "phenylketonurics". Individuals who cannot metabolize phenylalanine must monitor their intake of protein to control the buildup of phenylalanine.

Applications

For quantitative determination of L-phenylalanine and evaluation of drug effects on its metabolism.

Storage

The kit is shipped on ice. Store all reagents at -20°C except for reconstituted Enzyme A. Shelf life of 6 months after receipt.

Kit Components

Assay Buffer: 10 mL Enzyme A: 1 mL Dried NAD Solution: 1 mL Enzyme B: 120 μL Probe: 750 μL Standard: 120



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μL

Detection method FL530/595nm

Compatible Sample Types

Serum, urine etc

Features & Benefits

• Safe. Non-radioactive assay. • Sensitive and accurate. Linear detection range of 2 - 300 μM L-phenylalanine. • Convenient and high-throughput. Homogeneous "mix-incubate-measure" type assay. No wash and reagent transfer steps are involved. Can be readily automated on HTS liquid handling systems for processing thousands of samples per day.

Assay time

30 min

Sensitivity

Detection Limit: 2 μM
